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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,658	06/11/2001	John Albert Hockman	01-015	3104

7590 11/07/2003
Marvin J. Powell
1 Highland Avenue
Bethlehem, PA 18017

EXAMINER

VINCENT, SEAN E

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/878,658

Applicant(s)

HOCKMAN, JOHN ALBERT

Examiner

Sean E Vincent

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7-9-03
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1449 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1449 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on February 28, 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Pat. no. 6,211,103 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Election/Restrictions

2. Applicant's election of group II in the remarks filed July 19, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. The requirement for restriction has been withdrawn because it appears to be a misunderstanding of the amendment filed February 28, 2003.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 1 and 4-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

invention. The originally filed specification and claims contain no support for "wherein at least one of u, v or w has a value of from about 0.1 to 0.5," in claim 1. Likewise, the ranges of claims 7-9 are not supported by the originally filed disclosure.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirkovich (AS) in view of Froberg et al (3,607,210).

8. Mirkovich discloses the process of substituting diopside, $\text{CaMg}(\text{SiO}_3)_2$ for some of the materials used in the production of glass (page 1). This technique provides for a reduction in the heat requirement (page 5). Mirkovich also explains that the melting point of diopside is lower than the melting points of the ingredients that diopside would partially replace e.g. silica and carbonates (see page 6) and that typical glass fiber batches include boron oxide (See page 5). Froberg et al is relied on for the disclosure that molten glass gives off volatiles such as lead and boron alone or in the form of compounds and mixtures thereof (See Col. 1 , line 40 ff). From this disclosure one of ordinary skill in the art would understand that the substitution of diopside for materials used in the production of glass as disclosed by Mirkovich would inherently reduce the production of volatiles because the heat requirements can be reduced since the melting point of diopside is lower as compared with silica and carbonates. Currently, the claimed silicate compound appears to include the diopside of Mirkovich because the values of u v and w can be zero.

9. Mirkovich did not disclose the presence of 0.1 percent of any of Na, K, or Al in conjunction with the diopside addition. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to expect Na and/or K to be present in common glass compositions such as is well known in soda-lime glass and Al is well known in common glass compositions such as aluminosilicate. Further, Mirkovich mentions on page 7 that small amounts of Na and K were in the glass composition.

Response to Arguments

10. Applicant's arguments filed July 19, 2003 have been fully considered but they are not persuasive.

11. In response to the argument that claim 1 does not read on diopside, the examiner disagrees. Since applicant's specification did not adequately support 0.1 percent proportions of Al, Na or K, claim 1 can be broadly interpreted to read on infinitely small proportions of these elements, essentially impurity levels. As stated in the rejection, Na and K in small amounts were in the glass composition of Mirkovich. Therefore, small amounts of these elements from the glass batch would have been expected to participate chemically in the glass melting process and satisfy applicant's claim 1.

Conclusion

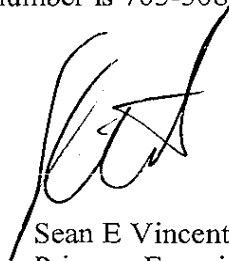
12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E Vincent whose telephone number is 703-305-3607. The examiner can normally be reached on M - F (8:30 - 6:00).

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

16. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Sean E Vincent
Primary Examiner
Art Unit 1731

S Vincent